

Emergency Status

Patient's presenting with symptoms of possible ischemia should be considered emergent if the vital signs include one or more of the following:

- Pulse ≥ 110 or ≤ 55 beats per minute
- Systolic blood pressure ≥ 200 or ≤ 90 mm Hg
- Diastolic blood pressure ≥ 110 mm Hg
- Respiratory rate >24 or <10 inspirations per minute
- Oxygen saturation <90 percent
- Irregular pulse
- Conductive disturbances or tachyarrhythmias

AND/OR

Patient's Appearance (including one or more of the following):

- Is unconscious or lethargic and/or confused
- Has severe respiratory distress or respirations appear labored
- Appears cyanotic, pale, or gray
- Appears diaphoretic
- Is in extreme pain or exhibits visible distress

Sudden cardiac death can occur early in any ischemic syndrome. The goals of rapid treatment of MI are to preserve as much myocardium as possible, avoid later complications of heart failure and dysrhythmias, and decrease risk of death.

ERx

Emergency Intervention for Acute Coronary Syndrome

- Cardiac monitor
- O₂
- Chew aspirin 160-325 mg
- IV access
- Obtain lab test (cardiac specific enzymes)
- SL-NTG, if no contraindication
- 12-lead ECG
- Adequate analgesia
- ACLS intervention, if necessary
- Chest X-ray, if available
- Arrange transportation

For Management of AMI, Unstable Angina/
NSTEMI & Follow-Up of Patient with IHD
See Respective Pocket Guides

SYMPTOMS THAT MAY REPRESENT ISCHEMIA OR MI

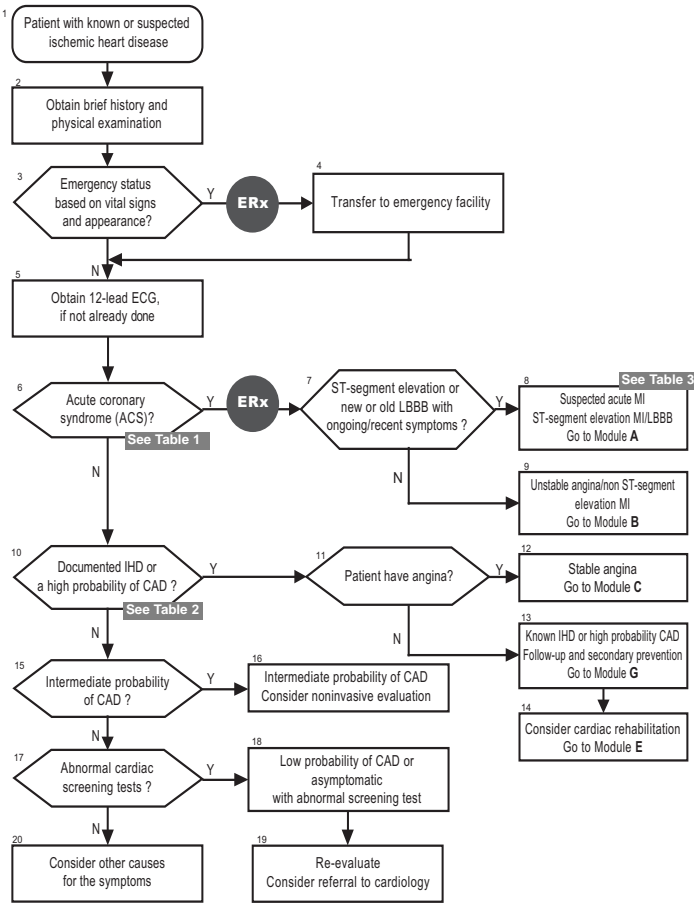
- Chest pain, discomfort, pressure, tightness, or heaviness, defined as at least a one-class
- Radiating pain to the neck, jaw, arms, shoulders, or upper back
- Unexplained or persistent shortness of breath
- Unexplained epigastric pain
- Unexplained indigestion, nausea, or vomiting
- Unexplained diaphoresis
- Unexplained weakness, dizziness, or loss of consciousness

Canadian Cardiovascular Society Classification of Angina

Class I	Angina only with <i>strenuous</i> exertion
Class II	Angina with <i>moderate</i> exertion
Class III	Angina with <i>minimal</i> exertion or ordinary activity
Class IV	Angina <i>at rest</i> or with <i>any</i> physical activity

VA/DoD Clinical Practice Guideline Management of Ischemic Heart Disease (IHD) – Core

Initial Evaluation Pocket Guide



VA access to full guideline: <http://www.oqp.med.va.gov/cpg/cpg.htm>
DoD access to full guideline: <http://www.QMO.amedd.army.mil>

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Table 1: DIAGNOSIS OF ACS

A diagnosis of ACS is made if at least *one major criterion* or *at least one minor criterion from both columns I and II* is present

Major Criteria	Minor Criteria	
A diagnosis of an ACS can be made if one or more of the following major criteria is present	In the absence of a major criterion, a diagnosis of ACS requires the presence of at least one item from both columns	
	I	II
	<ul style="list-style-type: none">• Prolonged (i.e., >20 minutes) chest, arm, or neck discomfort• New onset chest, arm or neck discomfort during minimal exertion or ordinary activity (CCS class III or IV)• Previously documented chest, arm, or neck discomfort which has become distinctly more frequent, longer in duration, or lower in precipitating threshold (i.e., increased by ≥1 CCS class to at least CCS III severity)	<ul style="list-style-type: none">• Typical or atypical angina^(a)• Male age > 40 or female age >60^(c)• Known CAD• Heart failure, hypotension, or transient mitral regurgitation by examination• Diabetes• Documented extra-cardiac vascular disease• Pathologic Q-waves on ECG• Abnormal ST-segment or T-wave abnormalities not known to be new

(a) ST elevation ≥0.2 mV at the J-point in two or more contiguous chest leads V₁, V₂, or V₃; or ≥ 0.1 mV in all other leads. Contiguity in the limb leads (frontal plane) is defined by the lead sequence: aVL, I, inverted aVR, II, aVF, III.

(b) Use the definitions to determine the likelihood that the presenting symptoms are angina

(c) These age and gender characteristics define a probability of CAD ≥10% in symptomatic patients

Classification of Symptoms Characteristic for Angina	
Typical (definite) angina	IF all three of the following primary symptom characteristics are present: <ul style="list-style-type: none">• Substernal chest or arm discomfort with a <i>characteristic</i> quality and duration• Provoked by exertion or emotional stress• Relieved by rest or nitroglycerin
Atypical (probable) angina	IF any two of the primary three symptom characteristics are present
Probably non-cardiac chest pain	IF provocation by exertion or emotional distress or relief by rest or nitroglycerin are present and one or more symptom characteristics suggesting non-cardiac pain are present
Definitely non-cardiac chest pain	IF none of the primary symptom characteristics are present and one or more symptom characteristics suggesting non-cardiac pain are present

Symptom characteristics suggesting non-cardiac pain:

- Pleuritic pain (i.e., sharp or knife-like pain brought on by respiratory movements or cough)
- Primary or sole location of discomfort in the middle or lower abdominal regions
- Pain that may be localized at the tip of one finger, particularly over costochondral junctions or the LV apex
- Pain reproduced with movement or palpation of the chest wall or arms
- Constant pain that lasts for many hours
- Very brief episodes of pain that last a few seconds or less
- Pain that radiates into the lower extremities

Table 2: Pretest Probability of CAD by Age, Gender, and Symptoms

Age	Gender	Typical/Definite Angina Pectoris	Atypical/Probable Angina Pectoris	Non-Cardiac Chest Pain	Asymptomatic
30-39	Men	Intermediate	Intermediate	Low	Low
	Women	Intermediate	Intermediate	Low	Low
40-49	Men	Intermediate	Intermediate	Intermediate	Low
	Women	Intermediate	Intermediate	Low	Low
50-59	Men	High	Intermediate	Intermediate	Low
	Women	Intermediate	Intermediate	Low	Low
60-69	Men	High	Intermediate	Intermediate	Low
	Women	Intermediate	Intermediate	Intermediate	Low

"High" indicates >90%, "intermediate" indicates 10% to 90%, and "low" indicates <10%

Table 3: Increased Risk for Complications or Death Following a Myocardial Infarction

- Recurrent angina (spontaneous or inducible)
- Congestive heart failure (CHF)
- Polymorphic ventricular tachycardia, ventricular fibrillation, or sustained monomorphic ventricular tachycardia more than 48 hours from presentation
- Prior MI
- Ejection fraction (EF) <0.40
- Associated severe mitral or aortic valvular disease (e.g., aortic stenosis, aortic regurgitation, or mitral regurgitation)

Pharmacotherapy

MEDICATIONS	ADVERSE REACTIONS	CONTRAINDICATIONS
Aspirin: UA/MI 160mg - 325 mg; chronically 81mg -325mg	<ul style="list-style-type: none">• GI intolerance: dyspepsia, nausea, GI bleeding, and heartburn• Bronchospasm: especially in patients with a history of asthma/nasal polyps• Tinnitus, Thrombocytopenia, protein-uria/nephropathy	<ul style="list-style-type: none">• ASA hypersensitivity: bronchospasm, angioedema, anaphylaxis• Active, severe bleeding
Aspirin Alternative- Clopidogrel: UA/MI 300mg x 1; then 75mg qd	<ul style="list-style-type: none">• Neutropenia: was 0.10% versus 0.17% for ASA in the CAPRIE trial.• Bleeding• GI intolerance: diarrhea	<ul style="list-style-type: none">• Hypersensitivity to clopidogrel• Active pathological bleeding (GI bleeding and intracranial hemorrhage)